WHAT IS CLAIMED IS:

~~Claims~~

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5   1.   A computing device programmed with an object oriented operating system, in which the operating system is adapted to handle objects related to text strings; characterised in that the operating system handles all such objects as belonging to one of three classes in which each class performs a different function and at least one such class is modified to do so in a way that reduces code and cycle overhead.

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2.   A peripheral device for a computer programmed with an object oriented operating system, in which the operating system is adapted to handle objects related to text strings; characterised in that the operating system handles all such objects as belonging to one of three classes in which each class performs a different function and at least one such class is

15   modified to do so in a way that reduces code and cycle overhead and further characterised in that the peripheral device is programmed to handle objects which also fall into the above three classes.

3.   An operating system for a computer, in which the operating system is adapted to

20   handle objects related to text strings and is encoded on computer readable media; characterised in that the operating system handles all such objects as belonging to one of three classes in which each class is optimised to perform a different function and at least one such class is modified to do so in a way that reduces code and cycle overhead.

25   4.   A method of operating a micro-processor using an operating system, in which the operating system is adapted to handle objects related to text strings; characterised in that the operating system handles all such objects as belonging to one of three classes, in which each class performs a different function and at least one such class is modified to do so in a way that reduces code and cycle overhead.

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5.   Computer readable media encoded with an operating system adapted to handle objects related to text strings; characterised in that the operating system handles all such objects as belonging to one of three classes, in which each class performs a different function and, at least one such class is modified to do so in a way that reduces code and
5   cycle overhead.

6.   A product or process as claimed above in which objects in one of the three classes are also pointers.

10   7.   A product or process as claimed in claim 6 in which a pointer points to the original memory location of literal text.

8.   A product or process as claimed in Claim 6 in which such an object is a flat structure.

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9.   A product or process as claimed above in which objects in one of the three classes (other than objects to which claims 6 - 8 relate) handle length limited text.

10.   A product or process as claimed in claim 9 in which those objects handling length
20   limited text are serviced by a limited sub-set of the potentially available memory management functions.

11.   A product or process as claimed in claim 10 in which those objects handling length limited text use static memory.

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12.   A product or process as claimed in claim 9 in which those objects handling length limited text are flat structures.

13.   A product or process as claimed above in which objects in one of the three classes (other than objects to which claims 6 - 12 relate) use heap memory and require the full set of available memory management functions.

5   14.   A product or process as claimed in any of Claims 1 - 13 above in which objects in any of the three classes are polymorphic.

15.   A product or process as claimed in claim 14 in which polymorphism is achieved in one instance by virtue of the operating system including a function that looks to a

10   predetermined field within each object and, depending on the value in that field, leads to a different kind of behaviour.

16.   A product or process as claimed in claim 15 above in which the field shares a machine word with another data item.

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17.   A product or process as claimed in any of Claims 1 - 16 above which is written in 8 bit character set and 16 bit character set invariant form by using aliases for class names that are 8 bit character set and 16 bit character set invariant.

20   18.   A product or process as claimed in any of Claims 17 above which is written in ASCII and Unicode invariant form by using aliases for class names that are ASCII and Unicode invariant.

19.   A product or process as claimed in any of Claims 1 - 18 above in which objects in

25   any of the three classes are inherently length specified and hence have no '0' terminator.